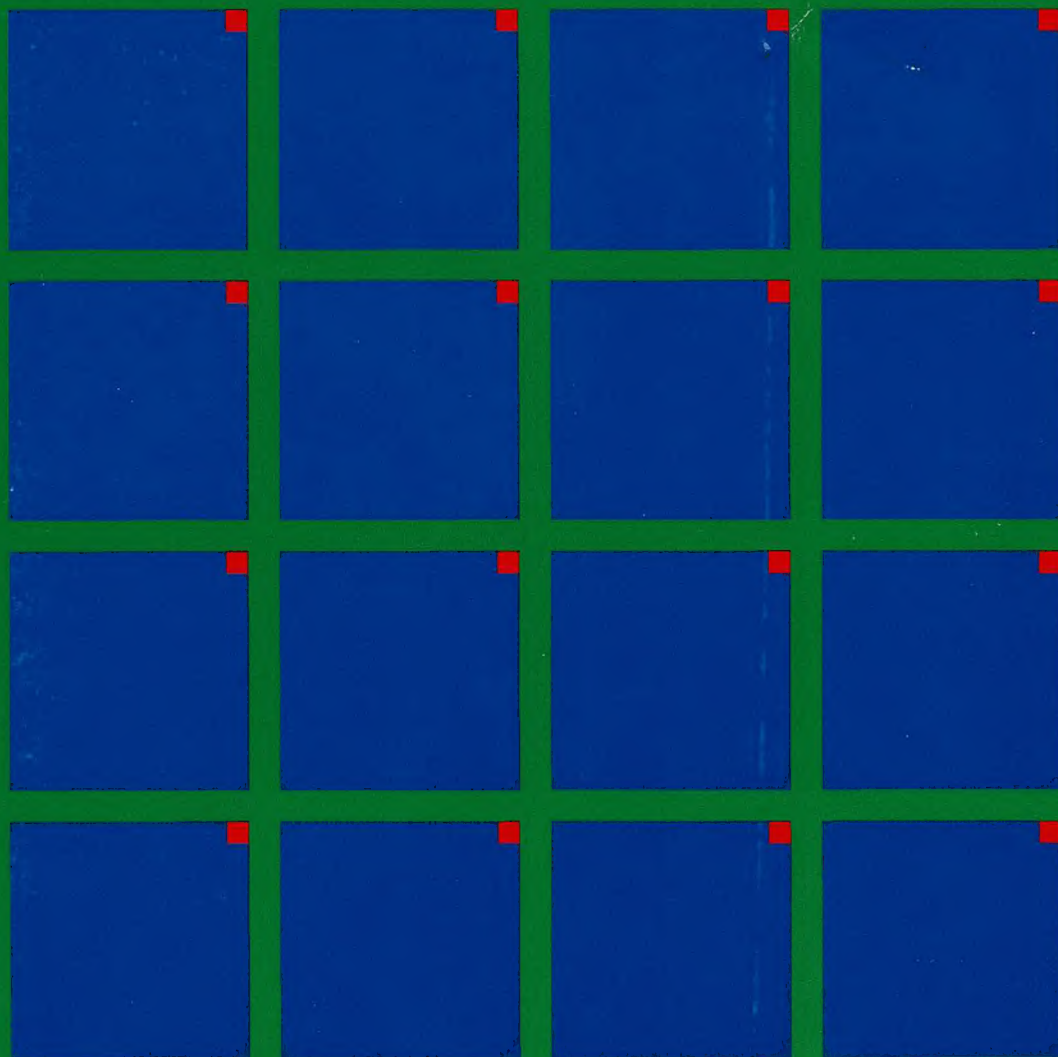


# Command Summary





# **GRiD Management Tools Command Summary**

April 1984



## About This Book

This manual is an overview of all the commands for each of the following applications: GRiDFile, GRiDManager, GRiDPlan, GRiDPlot, and GRiDWrite. It also describes forms and menus that are used with many of the commands.

If you need further information on using any of the applications covered here, see the *GRiD Management Tools Reference* manual.



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## GRiDFile Command Summary

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Begin	CODE-B Lets you mark the start of data you want to select after issuing the commands that use selections.
Cancel	CODE-ESC Exits GRiDFile. The database file is updated as you type in new entries. When you use Cancel, you merely exit GRiDFile; your updates have already been saved.
Column	CODE-C Selects an entire column on your database when issuing the Erase (CODE-E), Duplicate (CODE-D), Insert (CODE-I), Move (CODE-M), Substitute (CODE-S), or Transfer (CODE-T) commands.
Commands	CODE-? Displays all GRiDFile commands with a summary of each command function. Issue any command on this menu by moving the outline to it and confirming.
Compress	CODE-? Deletes space on permanent storage not needed by your database.
Duplicate	CODE-D Duplicates one or more cells, rows, or columns from one location to another. Original selection remains intact.
Erase	CODE-E Erases one or more cells, rows, or columns that you select from your current file.
Find	CODE-F Displays the entries in your database. You can display all the entries or only those entries that meet conditions you specify. GRiDFile displays the entries in the order you enter them, or it sorts them by column in either ascending or descending order, depending on what you specify in the Report form. See Report, CODE-?
Insert	CODE-I Inserts one or more new columns or rows into your current file.
Move	CODE-M Moves cells, rows, or columns from one location to another.
Options	CODE-O Determines column characteristics that are not individually set in the Properties form.



**Options Form**

Standard Column Width	Controls the width of all columns not individually set with CODE-P.	
	*8	The initial setting is 8, or erase the current number and type a number between 0 and 250 representing the number of characters you want the column to hold.
Standard Alignment	Controls the horizontal placement of characters in columns not individually set with CODE-P.	
	*Left	Contents of each cell are left-justified.
	Center	Contents of each cell are centered.
Standard Format	Right	Contents of each cell are right-justified.
	Determines how many decimal places are to be displayed in columns not individually set with CODE-P.	
	Decimal Places	Numbers are displayed as you specify. Can have up to 15 digits to the right of the decimal point.
	\$	Numbers are displayed with two digits to the right of the decimal point.
	*Integer	Numbers are displayed with no digits to the right of the decimal point.
Current Typeface	Lets you increase or decrease the number of characters that appear on your screen by changing the size of the display characters.	
	*System-wide	This setting is the same as the System-wide Typeface setting in the Options form of GRiDManager.
	Built-in 5x7	This setting provides the most efficient use of main memory (RAM) and is the same as GRiD 53.
	GRiD 53/ PC53	Displays 53 columns of data.
	GRiD 64/ PC 64	Displays 64 columns of data.
	GRiD 80/ PC 80	Displays 80 columns of data.
	<b>NOTE:</b> If you have other type fonts on your disk or bubble, they will also appear on the screen.	
	<i>*Indicates initial setting.</i>	

Pointer

CODE-=

If you press CODE-= while the Find form is displayed, the column letter or column name where the outline is currently positioned is inserted into the form and can be used as part of the Find condition.



**NOTE:** You can move the highlighted area from column to column by pressing the → or ← keys.

## Properties

### CODE-P

Allows you to alter the column characteristics for individual columns from those specified for the entire database in the Options form.

### Properties Form

Column Name	The name you assign to appear at the top of a column in the GRiDFile display.	
Column Width	Controls the width of columns. The Column Width property you assign in this form overrides the setting specified in the Options form.	
	No. of Characters	Type a number between 0 and 250. The number you type represents the number of characters you want in the column.
	*Standard	The setting is the Standard Column Width setting in the Options form.
Legal Values	Determines the kind of data you can enter into a column.	
	*Characters	You can enter any alphabetic, numeric, or symbol characters.
	Numbers	You can enter numbers, decimal points, and minus signs. To see a column sorted in numerical order, you must use this setting.
Column Index?	Determines whether or not GRiDFile creates an index to a column you specify.	
	*No	No index is created.
	Non-Unique Entries	You can enter data into the indexed column without restrictions.
	Unique Entries	If you type in a duplicate entry in the indexed column, you receive an error message and the entry is ignored.
Alignment	Controls the horizontal placement of contents within cells. The alignment property you assign in the Property form overrides the Standard Alignment setting specified in the Options form.	
	Left	Cell contents are left-justified.
	Center	Cell contents are centered.
	Right	Cell contents are right-justified.
	*Standard	The setting is the Standard Alignment setting in the Options form.



Format	Controls the numeric format of numbers in cells. The format property you assign in this form overrides the Standard Format setting in the Options form.	
	Decimal Places	Numbers are displayed as you specify. Can have up to 15 digits to the right of the decimal point.
	\$	Numbers are displayed with two digits to the right of the decimal point.
	Integer	Numbers are displayed with no digits to the right of the decimal point.
	*Standard	The setting is the Standard Format setting in the Options form.
Column Definition	Lets you write a formula, which GRiDFile uses to compute a value for each cell of a column. GRiDFile computes the value when you enter data in a cell in the same row as the cell that is to contain the computed value.	
	*No	No formula is created.
	Formula	Enter the desired formula, following the same rules for entering conditions. You cannot use the Wildcard character in any part of the formula.
Default Value	Specifies the entry you want to appear in all cells of a column. GRiDFile automatically enters the value or word in a cell of the selected column after you first enter data in another cell in the same row.	
	Value	GRiDFile enters the string of characters or numeric value you type.
	*No	Normal setting. You must enter any value directly in the cell.
	Date	GRiDFile enters the current data with the format mm/dd/yy (for month, day, and year).
	Time	GRiDFile enters the time of day with the format hh:mm:ss (for hour, minute, and second).
	<b>NOTE:</b> You must erase the default value from a cell with BACKSPACE or CODE-BACKSPACE if you want to enter a new value in that cell. If you change the default value, GRiDFile enters the new value in a cell only when you erase an existing value or add a new row.	

\* Indicates initial setting.

## Quit

### CODE-Q

Exits GRiDFile. The database file is updated as you type in new entries. When you use Quit, you merely exit GRiDFile; your updates have already been saved.

**Report****CODE-?**

Determines how GRiDFile sorts the query results being retrieved with CODE-F. You can specify up to six columns as sorting fields. When GRiDFile finds two records with matching fields, it then sorts the matching records on the second field you specify, and so on.

**NOTE:** To move the highlighted box in the Report form, press the SHIFT-→ keys or TAB to move to the right; press the SHIFT-← keys to move to the left. Press RETURN to move down a row.

**Report Form**

Sort On	<p>Specifies one or more columns as sort fields that GRiDFile bases the sort on.</p> <p>Choices are One or more column names specified in the Column Name item in the Properties form, *None, Column reference letter. (Move the highlighted box to the right by pressing TAB or SHIFT-→; to the left, SHIFT-←; up or down, RETURN.)</p> <hr/> <p><b>NOTE:</b> If you specify a column reference letter or column name, that column is sorted when you issue a Find command.</p>
Sort Order	<p>Specifies whether the sorting sequence is ascending or descending. The column is sorted if you specify a column letter for the Sort On item. To see a column sorted in numerical order, the Legal Values item in the Properties form must be set to Numbers.</p> <p>Choices are *Ascending, Descending.</p>

*\*Indicates initial setting.*

**Row****CODE-R**

Selects an entire row on your database when issuing the Duplicate (CODE-D), Erase (CODE-E), Insert (CODE-I), Move (CODE-M), Substitute (CODE-S), or Transfer (CODE-T) commands.

**Substitute****CODE-S**

Finds one or more characters in your database and substitutes them with another sequence. The command searches a selection or all of the *query results* (the portion of the database resulting from the last Find command).

**Transfer****CODE-T**

Saves a file, exchanges one file for another, includes a file, writes to a file, appends to a file, erases a file, shows characteristics of a file, and prints a file.

**Transfer Menu**

Save This File	Updates the file with the latest changes and stores them on permanent storage.
Exchange for Another File	Retrieves a different file. New file brings its own options and properties.
Include a File	Retrieves an existing file and includes it into the file you are currently editing. Included text takes on the options and properties of the current file.
Write to a File	Writes all or part of the current file to a different Device, Subject, Title, and Kind.
Append to a File	Appends all or part of the file to the end of a destination file.
Erase a File	Deletes a file on any device attached to your computer.
Show Characteristics of a File	Displays a report that gives the following characteristics of a file you specify: Device, Subject, Title, Kind, version number, length of file, date file was created, and date file was last modified.
Print	Displays Print menu.

Selecting the Print item on the Transfer menu displays the Print menu.

**Print Menu**

Print This File	Causes all or selected portions of the results of your last query to be printed out on the printer. The format of the printed data is determined by either the default options or the options you have selected in the Print Options form.
Set Printing Options	Determines the format and appearance of your current file. Displays the Print Options form (see following.)
Write Printer Copy to a File	Puts a formatted copy of your database file into a text file you specify. When you retrieve your file, it appears on the display in the same format as it would appear on a printed page.
Append Printer Copy to a File	Appends a formatted copy of your database file to the end of a text file you specify. When you retrieve your file, it appears on the display in the same format as it would appear on a printed page.
Print Query Conditions	Prints out the conditional statements in the Find form.

Selecting the Set Printing Options item on the Print menu displays the Print Options form.

**Print Options Form**

Headings	Determines the pages on which the heading text appears. Choices are *None, First page only, Not first page, All pages.
Heading Text	<p>The heading text you specify prints at the top of your document pages. The heading is centered at the top of those pages you specify in the Headings item.</p> <p>You can enter the following special characters or heading text:</p> <p>^P Prints the page number.  ^d Prints the current date.  ^t Prints the time of day.</p>
Column Headings	Determines the pages on which the column headings appear. Choices are None, First page only, Not first page, *All pages.
Top Margin at	Specifies the first printed line from the top of the page. Initial setting is 5, or erase the current number and type a number from 1 to 250.
Bottom Margin at	Specifies the last printed line from the top of the page. Initial setting is 57, or erase the current number and type a number from 1 to 250.
Left Margin at	Specifies the first printed character from the left side of the page. Initial setting is 15, or erase the current number and type a number from 1 to 250.
Right Margin at	Specifies the last printed character from the left side of the page. Initial setting is 80, or erase the current number and type a number from 1 to 250.
Print Size	Determines the font used by the printer to print your document. Choices are *Normal, Condensed, Enlarged, Boldface, Enlarged & Boldface.
Form Feed at	<p>Determines if the paper or forms in the printer are ejected before and after printing your document.</p> <p>Beginning Before printing, paper or forms are ejected and the first line of your document is printed at the line determined by the Top Margin setting.</p> <p>*End After printing, the paper or forms are ejected.</p> <p>Both The paper or forms are ejected before and after printing.</p> <p>Neither The pages aren't ejected either before or after printing. Each successive document you print follows the preceding one.</p>

\*Indicates initial setting.

Usage	<p>CODE-U</p> <p>Displays a report that shows the space usage both in main memory (RAM) and on the devices currently attached to your computer.</p>
Wildcard	<p>CODE-W</p> <p>Used with the Find (CODE-F) command. Pressing CODE-W causes the Wildcard character to appear in a conditional statement you enter in the Find form. Can be used only on a column with Legal Values (in the Properties form) set to Characters.</p>



### GRiDFile Functions

GRiDFile supplies a number of functions that you can use in conditional statements. These functions are listed below.

Component	Description
List	Any sequence of numbers, cell references, cell ranges, or expressions. Cell references and ranges of cells must be separated by commas.
Range	A series of adjacent cells with the first and last cell in the range specified. First and last cell coordinates are separated by two periods.
Expression	Any numeric value, or any cell coordinate, built-in function, or formula that produces a numeric value. These elements are connected with a valid arithmetic operator.

Function	Description
ABS (expression)	Calculates absolute value of an expression.
ACOS (expression)	Calculates an expression's arc cosine in radians.
ASIN (expression)	Calculates an expression's arc sine in radians.
ATN (expression)	Calculates an expression's arc tangent in radians.
COS (expression)	Calculates an expression's cosine in radians.
DATE\$	Displays the current date expressed in the format mm/dd/yy (for month, day, and year).
EXP (expression)	Returns value $e$ (the base of natural logarithms, approximately 2.72) raised to the power of the expression.
LOG (expression)	Calculates natural logarithm of the expression.
LOG10 (expression)	Calculates base-10 logarithm of the expression.
PI	Returns value of pi, 3.14159265358979.





ROUND (expression)	Removes decimal portion of the expression and returns a rounded integer.
SGN (expression)	Returns the algebraic sign of an expression. Positive expressions return 1; negative expressions return -1; and zero returns 0.
SIN (expression)	Calculates sine of the expression in radians.
SQR (expression)	Calculates square root of the expression.
TAN (expression)	Returns the tangent of the expression in radians.
TIME\$	Displays the current time of day expressed in the format hh:mm:ss (for hour, minute, and second).
TRUNC (expression)	TRUNC stands for "truncate." TRUNC (expression) removes the decimal portion of an expression and returns an integer.

## GRiDManager Command Summary

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Add or Remove a Device	CODE-? Lets you connect or disconnect a storage device (Hard Disk, Floppy Disk, or Portable Floppy) from your computer. Issue this command whenever you attach or detach a device to or from your computer.
Assign Password	Lets you assign or change an identification item for a file. This password must subsequently be typed every time the file is retrieved. <b>NOTE:</b> Don't assign a password to a file unless file security is essential. If you forget the password, you can't recover, duplicate, erase, or move the file. If you want to delete the file, you must re-initialize the device on which it resides. Re-initializing a device deletes all files on the device.
Cancel	CODE-ESC Exits GRiDManager without saving changes you make to the file you are working on. Your changes to any forms aren't saved.
Cancel Start-Up File	CODE-? Causes the system to display the File form without going to a designated start-up file. See Select Start-Up File command.
Commands	CODE-? Displays all GRiDManager commands with a summary of each command function. Issue any command on this menu by moving the outline to it and confirming.
Duplicate	CODE-D Duplicates source files into new or existing destination files.
Edit Sign-On Form	CODE-? Lets you modify the Sign-on form used to dial GRiD Central or a file server device. See Sign-On—CODE-?
Erase	CODE-E Erases one or more files.
Move	CODE-M Moves source files to new or existing destination files.
Options	CODE-O Sets system characteristics.

### Options Form

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Current Typeface	Lets you increase or decrease the number of columns that appear on your GRiDManager screen by changing the size of the display characters.
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*System-wide	The setting in the System-wide Typeface item applies.
Built-in 5×7	This setting provides the most efficient use of main memory (RAM) and is the same as GRiD 53.
	Other settings correspond to titles of one or more files that reside in the "Programs" subject and whose Kind is set to Font. Choices presently supplied by GRiD Systems are described below.
GRiD 53/PC 53	Displays 53 columns of data.
GRiD 64/PC 64	Displays 64 columns of data.
GRiD 80/PC 80	Displays 80 columns of data.
*System-wide Typeface	Lets you increase or decrease the number of columns that appear on the screen displays of those applications whose Current Typeface item is set to System-wide.  The settings are the same as for Current Typeface.
Current Printer	Activates the printer attached to your computer. Ensure that you have the correct printer files in your Programs if you choose one of these settings.  Choices are None (if you don't intend to use a printer) or correspond to the titles of one or more files that reside in the "Programs" subject and whose Kind is set to Printer.  Select the title of a printer file that corresponds to the printer attached to your computer. Select None if you don't intend to use a printer; it increases the amount of main memory (RAM) available.
Current Plotter	Activates the graph plotter attached to your computer.  Choices are None or correspond to the titles of one or more files that reside in the "Programs" subject and whose Kind is set to Plotter.  Select the title of the plotter file that corresponds to the plotter attached to your computer. Select None if you don't intend to use a plotter; it increases the amount of main memory (RAM) available.
Screen Frame	Determines if the highlighted box surrounding your screen appears. If you change this setting, you must restart your system to see the new screen frame.  Choices are *On, Off.
Stop for Errors	Determines whether processing stops when an error occurs.  Choices are *Yes, No.

*\*Indicates initial setting.*

Quit	CODE-Q Exits GRiDManager. Your changes to any forms are saved.
Select Start-Up File	CODE-? Designates a file that the system goes to after start-up instead of displaying the File form.
Set Time	CODE-? Sets the time and date on the internal clock of your computer.
Sign-Off	CODE-? Disconnects you from GRiD Central or a file server device you are signed on to. You fill in the Sign-off form with the connection type you used when signing on (GRiDLink or PhoneLink).
Sign-On	CODE-? Allows you to connect to GRiD Central or a file server device through an external modem plugged into the back of your computer.

#### Sign-On Form

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Connection Type	Sets the connection type.
GRiDLink	Connection is to a file service device over the cable, plugged into the back of your computer, and directly connected to the file server device.
*PhoneLink	Connection is to either GRiD Central or a file server device over a telephone line plugged into the back of your computer.
<b>NOTE:</b> The rest of the items (Company, Group, User, and Password) are given to you or your company's GRiD administrator.	

*\* Indicates initial setting.*

If you select PhoneLink, you're prompted to fill in the PhoneLink information portion of the Sign-On form.

#### Sign-On Form—PhoneLink Information

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Phone Number	Setting is the telephone number of the host system that you want to dial. Number can have a maximum of 27 characters.
Dial Type	Indicates whether your telephone system uses Pulse dialing (for older, non-digital equipment) or *Touch-Tone dialing (for most modern, digital telephone installations).
Baud Rate	Sets the speed at which data is transmitted and received. Choices are 300, *1200 (for internal modems).



Modem	Indicates the type of modem connected to your computer. Choices are *Internal, External.
Voice Before Data	When your computer is in voice mode, you can talk to someone over the telephone. When you're in data mode, only data can be transmitted and received. You're always in voice mode while dialing. This item lets you choose whether to enter data mode immediately after dialing or remain in voice mode.  Yes    You remain in voice mode until you press CODE-RETURN.  * No    You enter data mode immediately after dialing.
Wait for Answer	After changing from voice mode to data mode, the computer waits for a carrier signal from the host system. This item determines how long the system waits for this signal. If there's no signal from the carrier by the end of the period you specify, the system disconnects the line. Leave the initial setting (30 seconds) as it is or type an integer of your choice.
Speaker Volume	Controls the volume of the speaker within the computer. Choices are Off, Low, *Medium, and High.  <i>* Indicates initial setting.</i>

## Transfer

## CODE-T

Saves Sign-on form in current file, exchanges one file for another, writes Sign-on form to another file, shows characteristics of a file, and displays Print menu.

**Transfer Menu**

Save This Sign-On Form to a File	Saves your Sign-on form in your current file.
Exchange for Another File	Retrieves a different file and lets you choose to save or cancel the changes in the current file. New file brings its own options.
Write Sign-On Form to a File	Lets you save your Sign-on form in any file with Kind set to Sign-on.
Show Characteristics of Files	Displays a report that gives the following characteristics of a file you specify: Device, Subject, Title, Kind, version number, length of file, date file was created, and date file was last modified.
Print or Display	This item displays the Print menu.

Selecting the Print or Display item on the Transfer menu displays the Print menu.

### Print Menu

Display Titles	<p>Displays a list of titles showing the Kind (Graph, Worksheet, Text, etc.), Length (number of bytes of storage used by the Title on the permanent storage device), and Last Modified Date (the date and time a change was made to the title).</p> <p>You can use the Wildcard character when filling in the Subject, Title, and Kind names.</p>
Display Subjects	<p>Displays a list of subjects showing the Count (number of titles in the subject), Length (number of bytes used by the subject on the permanent storage device), and Last Modified Date (the date and time a change was made to the title in the subject).</p> <p>You can use the Wildcard character when filling in the Subject, Title, and Kind names.</p>
Print Titles	Performs the same function as Display Titles except that the titles are printed rather than scrolled on the screen.
Print Subjects	Performs the same function as Display Subjects except that the subjects are printed rather than scrolled on the screen.
Print Titles to a File	Performs the same function as Display Titles except that the Titles are inserted into a file (along with the version number) rather than scrolled on the screen.
Print Subjects to a File	Performs the same function as Display Subjects, except that the Subject names are inserted into a file rather than scrolled on the screen.
Set Printing Options	Determines the format and appearance of your current file. When you select this item and confirm, the Print Options form appears.

Selecting the Set Printing Options item on the Print menu displays the Print Options form.

### Print Options Form

Headings	<p>Determines the pages on which the heading text appears.</p> <p>Choices are None, First page only, Not first page, * All.</p>
Heading Text	<p>Heading text you specify to be printed at top of document pages. The heading is centered at the top of those pages you specify in the Headings item.</p> <p>You can enter the following special characters as heading text:</p> <p>^p Prints the page number.  ^d Prints the current date.  ^t Prints the time of day.</p>



Top Margin at	Specifies the first printed line from the top of the page. Initial setting is 5, or erase the current number and type a number from 1 to 250.
Bottom Margin at	Specifies the last printed line from the top of the page. Initial setting is 57, or erase the current number and type a number from 1 to 250.
Left Margin at	Specifies the first printed character from the left side of the page. Initial setting is 15, or erase the current number and type a number from 1 to 250.
Right Margin at	Specifies the last printed character from the left side of the page. Initial setting is 80, or erase the current number and type a number from 1 to 250.
Print Size	Determines the font used by the printer to print your document. Choices are *Normal, Condensed, Enlarged, Boldface, Enlarged & Boldface.
Form Feed at	Determines if the paper or forms in the printer are ejected before and after printing your document.
Beginning	Before printing, paper or forms are ejected and the first line of your document is printed at the line determined by the Top Margin setting.
*End	After printing, the paper or forms are ejected.
Both	The paper or forms are ejected before and after printing.
Neither	The pages aren't ejected either before or after printing. Each successive document you print follows the preceding one.

*\*Indicates initial setting.*

#### Usage

##### CODE-U

Displays a report that shows the space usage both in memory and on the devices (Hard Disk, Floppy Disk, etc.) currently attached to your computer.

#### Wildcard Character

##### CODE-W

Lets you duplicate, erase, or move multiple files using only one Duplicate, Erase, or Move command.



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## GRiDPlan Command Summary

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Begin	CODE-B Lets you mark the start of data you want to select after issuing the commands that use selections.
Calculate	CODE-RETURN Calculates the value of each cell in the worksheet based on cell definitions and the contents of the cells.
Cancel	CODE-ESC Exits GRiDPlan without saving changes you make to the file you are working on. Your changes to the Options, Properties, or other forms aren't saved.
Column	CODE-C Selects an entire column on your worksheet when issuing the Erase (CODE-E), Properties (CODE-P), Insert (CODE-I), or Transfer (CODE-T) commands.
Commands	CODE-? Displays all GRiDPlan commands with a summary of each command function. Issue any command on this menu by moving the outline to it and confirming.
Define Cell	CODE-= Moves cursor to cell definition area so you can enter formula. Specifies how GRiDPlan is to calculate the value of a cell.
Duplicate	CODE-D Duplicates one or more cells and their definitions from one location to another. Original selection remains intact.  The Duplicate Cell form shown appears when one or more of the cells being duplicated contains a cell definition; it determines how the cell definitions appear after the duplication.

### Duplicate Cell Form

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*Relative	After the duplication, any cell coordinates in the duplicated cell definitions are changed relative to the location of the target cell(s).
Fixed	After the duplication, any cell coordinates in the duplicated cell definitions are the same as they were for the source cell(s).
All Relative	All of the duplicated cell definitions are changed relative to the location of the target cell(s).
All Fixed	All of the duplicated cell definitions are duplicated exactly as they are in the source cell(s).

*\*Indicates initial setting.*

**Erase** CODE-E  
Erases one or more cells, rows, or columns that you select from your current file.

**Headings** CODE-H  
Locks columns and/or rows in place. Lets you edit data and scroll in the other columns and rows of your worksheets. Position the outline, press CODE-H, then select an item on the menu and confirm.

#### Headings Menu

Lock Headings to the Left of This Column	The column(s) to the left of the outline are locked on the screen.
Lock Headings Above This Row	The row(s) above the outline are locked on the screen.
Lock Headings Above and to the Left	The row(s) and column(s) above and to the left of the outline are locked on the screen.
Release Headings	Returns the worksheet to its original state, allowing you to scroll and edit in all columns and rows.

**Insert** CODE-I  
Inserts one or more new columns or rows into your current worksheet.

**Jump** CODE-J  
Allows you to move directly to a cell from the present cursor position. Type in the cell coordinate, confirm, and the outline appears at the desired cell.

**Move** CODE-M  
Moves cells or groups of cells from one location to another.

**Options** CODE-O  
Determines cell characteristics that are not set individually on the Properties form.

#### Options Form

Standard Alignment	Controls the horizontal placement of characters in cells not individually set with CODE-P.	
	Left	Contents of each cell are left-justified.
	Center	Contents of each cell are centered.
	*Right	Contents of each cell are right-justified.
Standard Format	Determines whether decimal places are displayed in cells not individually set with CODE-P.	



	Decimal Places	Can have up to 15 digits to the right of the decimal point.
	Integer	Numbers are rounded to integers.
	*\$	Numbers are displayed with two digits to the right of the decimal point.
Standard Column Width	Controls the width of all columns not individually set with CODE-P.	
	*8	The initial setting is 8. Type a number between 0 and 250 representing the number of characters you want the column to hold.
Show Grid?	Determine whether the lines between cells are shown on the screen. Choices are * Yes, No.	
Evaluation Order	Determines the order in which GRiDPlan calculates the value of cells.	
	By Columns	Cells are calculated beginning with the first column, from top to bottom, and continuing through the remaining columns.
	*By Rows	Cells are calculated beginning with the first row, from left to right, and continuing through the remaining rows.
Precision	Determines the number of decimal places that GRiDPlan uses to save numeric values. Applies to all cells.	
	6-digit Real	Precision is six digits, with a two-digit exponent between - 37 and + 37. Accurate for integers between - 999,999 and 999,999, or for dollar amounts between - 9,999.99 and 9,999.99.  Use this setting for computations involving dollar amounts such as \$1000.24 and high precision fractions such as an interest rate of 0.01% or 0.0001.
	*15-digit Real	Precision is fifteen digits, with a three-digit exponent between - 308 and + 307. Accurate for integers between - 999,999,999,999,999 and 999,999,999,999,999 and for dollar amounts between - 9,999,999,999,999.99 and 9,999,999,999,999.99.  Use this setting when you need very high precision for fractions, or when computing very large amounts. Also useful for scientific computations.



7-digit Dollar	<p>Precision is seven digits of integer accuracy and two digits of fractional accuracy. Integer values are kept at full accuracy, and fractions are rounded to the nearest cent. Accurate for integers between - 21,474,836.47 and 21,474,836.47, inclusive.</p> <p>Use this setting for business calculations where higher precision isn't needed or desired.</p>
9-digit Integer	<p>Precision is nine integer digits with no fractional part. Accurate for integers between - 2,147,483,647 and 2,147,483,647, inclusive.</p> <p>Use this setting when large numbers are required, but no fractions are needed in the worksheet.</p>
Current Typeface	<p>Lets you increase or decrease the number of characters that appear on your screen by changing the size of the display characters.</p>
*System-wide	<p>This setting is the same as the System-wide Typeface item in the Options form of GRiDManager.</p>
Built-in 5×7	<p>This setting provides the most efficient use of main memory (RAM) and is the same as GRiD 53.</p>
GRiD 53/ PC 53	<p>Displays 53 columns of data.</p>
GRiD 64/ PC 64	<p>Displays 64 columns of data.</p>
GRiD 80/ PC 80	<p>Displays 80 columns of data.</p>
<p><b>NOTE:</b> If you have other type fonts on your disk or bubble, they will also appear on the screen.</p>	
<p><i>*Indicates initial setting.</i></p>	

**Pointer**

CODE-=

Points to a cell or range and places cell coordinates in the definition area.

**Properties**

CODE-P

Allows you to assign characteristics to one or more cells in a worksheet.

**Properties Form****Alignment**

Controls the horizontal placement of contents within cells. The alignment property you assign to cell(s) in this form overrides the Standard Alignment setting specified in the Options form.

	Left	Cell contents are left-justified.
	Center	Cell contents are centered.
	Right	Cell contents are right-justified.
	*Standard	The setting is the Standard Alignment setting in the Options form.
	Don't Change	The alignment for each cell remains as it was.
Format	Controls the numeric format of numbers in cells. The format property you assign to cell(s) in this form overrides the Standard Format setting in the Options form.	
	Decimal Places	Type the number of digits you want to appear to the right of the decimal point.
	Integer	Numbers are displayed with no digits to the right of the decimal point. If GRiDPlan calculates the values as real numbers, it rounds them to integers for the display.
	\$	Numbers are displayed with two digits to the right of the decimal point.
	*Standard	The setting is the Standard Format setting in the Options form.
	Don't Change	The format for each cell remains as it was.
Column Width	Controls the width of columns. The column width property you assign in this form overrides the Standard Column Width setting specified in the Options form.	
	No. of Characters	Type a number between 0 and 250. The number you type represents the number of characters you want in the column.
	*Standard	This setting is the Standard Column Width setting in the Options form.
	Don't Change	The width of each column remains as it was.

*\*Indicates initial setting.*

Quit

CODE-Q

Exits GRiDPlan and saves any changes made to your file since you last saved it. Likewise, your changes to any forms are saved.

Recalculate

CODE-RETURN

See Calculate—CODE-RETURN.

Row	CODE-R Selects an entire row on your worksheet when issuing the Erase (CODE-E), Properties (CODE-P), Insert (CODE-I), or Transfer (CODE-T) commands.
Transfer	CODE-T Saves a file, exchanges one file for another, includes a file, writes to a file, appends to a file, erases a file, shows characteristics of a file, and prints a file.

**Transfer Menu**

Save This File	Saves a copy of the current file over the original file you retrieved. Entire file and settings in the Options, Properties, and other forms are saved.
Exchange for Another File	Retrieves a different file and lets you choose to save or cancel the changes in the current file. New file brings its own options.
Include a File	Retrieves an existing file and includes it in the file you are currently editing. Included text takes on the options and properties of the current file.
Write to a File	Writes all or part of the current file to a different Device, Subject, Title, and Kind.
Append to a File	Appends all or part of the current file to a different Device, Subject, Title, and Kind.
Erase a File	Deletes a file on any device attached to your computer.
Show Characteristics of a File	Displays a report that gives the following characteristics of a file you specify: Device, Subject, Title, Kind, version number, length of file, date file was created, and date file was last modified.
Print	Displays the Print menu.

Selecting the Print item on the Transfer menu displays the Print menu.

**Print Menu**

Print This File	Causes all or selected portions of your current file to be printed out on the printer. The format of the printed data is determined by either the initial settings for options or the options you have selected in the Print Options form.
Set Printing Options	Displays the Print Options form.
Write Printer Copy to a File	Puts a formatted copy of your worksheet into a text file you specify.
Append Printer Copy to a File	Puts a formatted copy of your worksheet at the end of any data in the text file you specify.





Print Definitions	Lets you print out all or selected cell definitions from your worksheet.
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Selecting the Set Printing Options item on the Print menu displays the Print Options form.

#### Print Options Form

Headings	Determines the pages on which the heading text appears. Choices are *None, First page only, Not first page, All pages.
Heading Text	Heading text you specify to be printed at top of document pages. The heading is centered at the top of those pages you specify in the Headings item.  You can enter the following special characters as heading text: ^p Prints the page number. ^d Prints the current date. ^t Prints the time of day.
Column Headings	Determines pages on which the Column Headings appear. Choices are None, First page only, Not first page, *All pages.
Column Spacing	Determines whether a space separates each column in a printed copy of the worksheet. Choices are None, *1 space.
Row Headings	Determines whether row numbers are printed as headings for each row. Choices are *Yes, No.
Top Margin at	Specifies the first printed line from the top of the page. Initial setting is 5, or erase the current number and type a number from 1 to 250.
Bottom Margin at	Specifies the last printed line from the top of the page. Initial setting is 57, or erase the current number and type a number from 1 to 250.
Left Margin at	Specifies the first printed character from the left side of the page. Initial setting is 15, or erase the current number and type a number from 1 to 250.
Right Margin at	Specifies the last printed character from the left side of the page. Initial setting is 80, or erase the current number and type a number from 1 to 250.
Print Size	Determines the font used by the printer to print your document. Choices are *Normal, Condensed, Enlarged, Boldface, Enlarged & Boldface.





Form Feed at	Determines if the paper or forms in the printer are ejected before and after printing your document.	
Neither		The pages aren't ejected either before or after printing. Each successive document you print follows the preceding one.
Beginning of Print		Before printing, paper or forms are ejected and the first line of your document is printed at the line determined by the Top Margin setting.
*End of Print		After printing, the paper or forms are ejected.
Both		The paper or forms are ejected before and after printing.

*\*Indicates initial setting.*

### Usage

#### CODE-U

Displays a report that shows the space usage both in main memory (RAM) and on the devices currently attached to your computer.

### Views

#### CODE-V

Lets you view two or more separate horizontal or vertical portions of your worksheet that normally wouldn't appear on the screen at the same time. You can enter and edit data in any view by moving the outline to that view with the CTRL key and one of the Arrow keys. To obtain a split view, move the outline to the row or column where you want the split to occur. Press CODE-V, select an item on the menu, and confirm.


#### Views Form

Unsynchronized	With this setting, the view remains static as you scroll.	
	Split View at Left of This Column	As you scroll horizontally or vertically in one view, the opposite view remains static.
	Split View Above This Row	As you scroll in the upper or lower view, the opposite view remains static.
Synchronized	With this setting the views scroll in synchronization.	
	Split View at Left of This Column	As you scroll horizontally or vertically in one view, both views move in synchronization.
	Split View Above This Row	As you scroll in the upper or lower view, both views move in synchronization.
Show Only One View	Returns your worksheet to the normal display.	

### GRiDPlan Functions

GRiDPlan supplies a number of functions that you can use to define cells. These functions are described below.

Component	Description
List	Any sequence of numbers, cell references, cell ranges, or expressions. Cell references and ranges of cells must be separated by commas.
Range	A series of adjacent cells with the first and last cell in the range specified. First and last cell coordinates are separated by two periods.
Expression	Any numeric value, or any cell coordinate, built-in function, or formula that produces a numeric value. You connect these elements with a valid arithmetic operator.

Function	Description
ABS(expression)	Calculates absolute value of an expression.
ACOS(expression)	Calculate an expression's arc cosine in radians.
ASIN(expression)	Calculates an expression's arc sine in radians.
ATN(expression)	Calculates an expression's arc tangent in radians.
AVG(list)	<p>Calculates average (arithmetic) means of the values of the listed cells. If one of the cells in the list is empty, its value isn't included in this calculation.</p> <p> <b>CAUTION:</b> Blank cells in <i>list</i> are not included in calculating the average value. If you want to include blank cells when calculating an average value, you must enter a zero in each blank cell.</p>
CELL(column, row)	Returns value of a particular cell. <i>Column</i> is a number corresponding to the column letter; <i>row</i> is a row number.
COS(expression)	Calculates an expression's cosine in radians.



COUNT(list)	Calculates the number of listed cells that contain numeric values. Empty cells or cells containing non-numeric characters are not counted.
EXP(expression)	Returns value $e$ (the base of natural logarithms, approximately 2.72), raised to the power of the expression.
INT(expression)	Removes decimal portion of the expression and returns an integer.
IRR	<p>The Internal Rate of Return (IRR) function calculates the rate of return of one or more periodic cash flows resulting from an initial investment. The function helps determine the profitability of an investment; it assumes that money is borrowed and reinvested at the same interest rate. See also MIRR (Modified Internal Rate of Return).</p> <p>IRR(range), <i>range</i> represents a series of cells. The value in the first cell is the initial investment; the values in the subsequent cells are the periodic cash flows.</p> <p>IRR(range, initialInvestment), <i>range</i> represents a series of cells containing periodic cash flows; <i>initialInvestment</i> is the original capital outlay, which may be positive or negative. One of the values for periodic cash flow must have a sign opposite to the sign of initialInvestment; if not, the result produced by using this function won't be accurate.</p> <p>The values you express in the cells can be either positive or negative. Give negative values to identify amounts you pay out; positive values to amounts you receive.</p> <p><b>CAUTION:</b> Blank cells in <i>range</i> are not included in calculating the rate of return. If you want to include blank cells when calculating a rate of return, you must enter a zero in each blank cell.</p>
LOG(expression)	Calculates natural logarithm of the expression.
LOG10(expression)	Calculates common logarithms of the expression.
MAX(list)	Returns maximum value in the specified list of cells.
MIN(list)	Returns minimum value in the specified list of cells.

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MIRR

The Modified Internal Rate of Return (MIRR) function calculates the decimal rate of return of one or more periodic cash flows resulting from an initial investment. Like the IRR function, MIRR helps determine the profitability of an investment. Unlike IRR, the MIRR function assumes that negative cash flows are financed at a *safe rate* and positive cash flows are financed at a *risk rate*.

MIRR(range, safeRate, riskRate), *range* represents a series of cells; the value in the first cell of the range is the initial investment; the values in the subsequent cells are the periodic cash flows; *safeRate* and *riskRate* are the interest rates specified as decimals.

MIRR(range, initialInvestment, safeRate, riskRate), *range* represents a series of cells containing the periodic cash flows; *initialInvestment* is the original capital outlay.

The values you express in the cells can be either positive or negative. Give negative values to identify amounts you pay out; positive values to amounts you receive.

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NPV


Calculates net present value based on the original value of an item, a stream of payments or receipts, and an interest rate.

NPV(range, rate), *range* represents a series of cells. The value in the first cell is the initial investment, a value that is not discounted (effective time period is zero); the values in the subsequent cells are periodic cash flows such as payments or receipts; *rate* is the annual interest rate per period, expressed as a decimal. A minus sign ( - ) identifies amounts that you pay out; amounts that you receive are positive ( + ).

NPV(range, initialInvestment, rate), *range* represents a series of cells containing periodic cash flows; *initialInvestment* is the original investment; and *rate* is the annual interest rate per period expressed in decimal form.

The values you express in the cells can be either positive or negative. Give negative values to identify amounts you pay out; positive values to amounts you receive.

**NOTE:** You must divide the annual interest rate by 12 when calculating on a monthly basis, by 4 on a quarterly basis, by 2 on a biannual basis, and so on.

 **CAUTION:** Blank cells in *range* are not included in calculating the net present value. If you want to include blank cells when calculating a value, you must enter a zero in each blank cell.



PI	Returns value of pi, 3.14159265358979.
RND(expression)	<p>RND stands for <i>random number</i>. RND(expression) functions according to the value you specify for the expression, as follows:</p> <ul style="list-style-type: none"> <li>□ If the expression is 1, the next random number is generated. The number generated is always a decimal value between 0 and 1 (e.g., .1 – .99999).</li> <li>□ If the expression is 0, the previous random number is again generated.</li> </ul>
ROUND(expression)	Removes decimal portion of the expression and returns a rounded integer. If the decimal portion of the integer is 0.5 or higher, the rounded value is the numeric value of the integer plus 1.
SEARCH (range, value)	<p>Looks through a series of cells containing numbers and returns a row or column number. <i>Range</i> refers to a series of cells with numbers in ascending order; the range of cells must all be in the same row or the same column. <i>Value</i> refers to the number being searched for.</p> <p>If Search finds a cell in the specified range with a number equal to value, it returns the row or column number of that cell. If it finds a cell with a number greater than value, it returns a value computed by subtracting 1 from the row or column numbers.</p>
SGN(expression)	Returns algebraic sign of an expression. Positive expressions return 1; negative expressions return -1; and zero returns 0.
SIN(expression)	Calculates the sine of the number or equation in radians.
SQR(expression)	Calculates square root of the number or equation.
SUM(list)	Calculates sum of the values in the cells specified by list.
TAN(expression)	Returns tangent of the number or equation in radians.
TRUNC(expression)	TRUNC stands for <i>truncate</i> . TRUNC(expression) removes without rounding the decimal portion of the expression (if present) and returns an integer.

## GRiDPlot Command Summary

**Axes Selection**      **CODE-?**  
 Lets you alter the scales for the right, left, and horizontal axes.  
 Form items are identical.

### Axes Forms (Left, Right, Horizontal)

Axis Settings	Determines what GRiDPlot does with the settings for the items on this form.	
	Manual	Uses the settings on this form to determine the axis scale.
	Automatic	Uses GRiDPlot's automatic scaling to determine the axis scale; ignores the settings on this form. Lets you keep the settings you have filled in manually for particular graph(s), while using automatic scaling for the same or other graphs.
	*Automatic: Update Form	Uses GRiDPlot's automatic scaling to determine the axis scale; ignores the settings on this form. Erases any numbers you have typed in the form manually; replaces them with the numbers GRiDPlot used for the automatic scale of the graph.
Top Number	The number that appears at the top of the scale; it is always the highest or lowest number on the scale.	
	Number	Type the top scale number.
	*Automatic	GRiDPlot selects the number automatically.
Bottom Number	The number that appears at the bottom of the scale; it is always the highest or lowest number on the scale.	
	Number	Type the bottom scale number.
	*Automatic	GRiDPlot selects the number automatically.
Distance Between Numbers	Determines the distance between numbers on the scale.	
	Number	Type a number that indicates the distance between numbers.
	*Automatic	GRiDPlot selects the number automatically.





Format	Determines the format of the numbers that label the axis.	
	Integer	All numbers appear as integers. They are rounded if necessary.
	\$	The number has two decimal places.
	Standard	Uses the Standard setting defined in the Options form.
	* Automatic	Uses GRiDPlot's automatic format.
Scale Factor	The factor by which numbers on the scale should be multiplied to arrive at an accurate representation of the data.	
	Choices are *None (the number on the scale is an accurate representation of the data), Hundreds, Thousands, Millions, Billions, Trillions.	
Scale	The progression of numbers used to label the axis. The numbers display the values of the data being graphed.	
	* Linear	Numerical distance between each tick mark is the same.
	Logarithmic	Displays numbers logarithmically. Ignores the Distance Between Numbers item, described earlier.

*\* Indicates initial setting.*

Begin	CODE-B Lets you mark the start of data you want to select after issuing the commands that use selections.
Cancel	CODE-ESC Exits GRiDPlot without saving changes made to the file you are working on. Your changes to any forms aren't saved.
Column	CODE-C Lets you select one or more columns on your graph table when issuing the Erase (CODE-E), Properties (CODE-P), Insert (CODE-I), or Transfer (CODE-T) commands.
Commands	CODE-? Displays all GRiDPlot commands with a summary of each command function. Issue any command on this menu by moving the outline to it and confirming.
Duplicate	CODE-D Duplicates one or more cells, rows, or columns from one location to another. Original selection remains intact.
Erase	CODE-E Erases one or more cells, rows, or columns that you select from your current file.



- Graph** CODE-G  
Displays a graph on the screen.
- Headings** CODE-H  
Causes headings to appear on your graph. This text is in addition to the horizontal axis labels and legend labels set by the Graph Orientation item in the Options form. The maximum length of a heading is 80 characters. The number of characters that appears in the form depends on the Current Typeface setting in the Options form.

#### Headings Menu

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Title: Line 1	The first line of the title is centered over the data being graphed. On a plotted graph, the two title lines appear in the largest-size letters.
Title: Line 2	The second line of the title is centered under the first line.
Bottom Heading	This heading is centered under the graph. It usually labels the horizontal axis on bar and line graphs.
Left Heading	This heading labels the left vertical axis on all graphs except pie charts. The labels appear even if the axis isn't there.
Right Heading	This heading labels the right vertical axis on all graphs except pie charts. The labels appear even if the axis isn't there.
Plot Footnote	This heading appears in the lower-right corner of the plotted graph, preceded by the word <i>Footnote</i> .

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- Horizontal Axis** CODE-?  
Determines horizontal axis characteristics. See Axes Selection—CODE-?
- Insert** CODE-I  
Inserts one or more rows or columns into your current file. New rows are inserted above the position of the outline; new columns are inserted to the left of the outline.
- Left Axis** CODE-?  
Determines left axis characteristics. See Axes Selection—CODE-?
- Move** CODE-M  
Moves cells, rows, or columns from one location to another.
- Options** CODE-O  
Defines the basic structure of a graph.

**Options Form**

Kind of Graph	Determines which kind of graph displays the data. Choices are Clustered Bar, *Segmented Bar, Line Graph, Pie Chart, Scatter, High-Low-Close.	
Graph Orientation	Determines which labels appear on the horizontal axis and in the legend, and which direction the table is scanned to make a graph.	
	*Standard	The labels in a row become the labels on the horizontal axis. The labels in a column become the labels for the legend items.
	Transposed	The labels in a column become the labels on the horizontal axis. The labels in a row become the labels for the legend items.
Background Grid	Determines background grid for axis graphs. Pie charts do not have background grids. Choices are *Box, Horizontal Lines, Graph Paper, Ticks, XY Axes.	
Bar Orientation	Applies to bar graphs only.	
	*Vertical	Bar originates on the horizontal axis and is standing up.
	Horizontal	Bar originates on the vertical axis and is lying down.
Standard Alignment	Controls the horizontal placement of characters in cells not individually set with CODE-P.	
	Left	Contents of each cell are left-justified.
	Center	Contents of each cell are centered.
	*Right	Contents of each cell are right-justified.
Standard Format	Determines if decimal places are to be displayed in cells not individually set with CODE-P.	
	Decimal Places	Numbers are displayed as you specify.
	Integer	Numbers are displayed with no digits to the right of the decimal point.
	*\$	Numbers are displayed with two digits to the right of the decimal point.
Standard Column Width	Controls the width of all columns not individually set with CODE-P.	
	*8	The initial setting is 8, or erase the current number and type a number between 0 and 250 representing the number of characters you want the column to hold.
Current Typeface	Lets you increase or decrease the number of characters that appear on your screen by changing the size of the display characters.	

*System-wide	This setting is the same as the System-wide Typeface setting in the Options form of GRiDManager.
Built-in 5×7	This setting provides the most efficient use of main memory (RAM) and is the same as GRiD 53.
GRiD 53/ PC 53	Displays 53 columns of data.
GRiD 64/ PC 64	Displays 64 columns of data.
GRiD 80/ PC 80	Displays 80 columns of data.

**NOTE:** If you have other type fonts on your disk or bubble, they will also appear on the screen.

*\*Indicates initial setting.*

## Properties

### CODE-P

Assigns attributes to one or more cells, columns, or rows in a graph table.

#### Properties Form

Kind of Data	Tells GRiDPlot whether to graph a cell, and whether to consider the contents of a cell as a number or as a label.
Numbers	Assign to rows or columns with numbers.
Labels	Assign to rows and columns with text or spacing to be used in labeling the legend or horizontal axis.
*Don't Graph	Assign to any row or column that is empty or that you don't want to graph.
Don't Change	Applicable only when you set properties of more than one row or column at a time.
Pattern	Determines which pattern is used for graphs. Choices are Patterns (////, XXXXX, \\\, Solid, / / /, X X X, \ \ \, Empty), Don't Change. Each graph type has its own selection of patterns.
Color	Determines which color is used for graphs. Applies only if you are using a plotter with colored pens. For a plotter, you also select a Background color on the Plotter Settings form when you actually plot the graph. Choices are Colors (Black, Blue, Red, Green, Burnt Orange, Gold, Turquoise, Violet), Don't Change. Initial setting is dependent on the row or column selected.



Line & Bar Axis	Permits a scale on both the left and right axes, or only on the right axis. Applies only when you choose Line Graph, High-Low-Close Graph, or Clustered Bar Graph on the Options form.  Choices are *Left Axis, Right Axis, Don't Change.
Alignment	Controls the horizontal placement of contents within cells. The alignment property you assign to cell(s) in the Property form overrides the Standard Alignment specified in the Options form.
	Left      Cell contents are left-justified.
	Center      Cell contents are centered.
	Right      Cell contents are right-justified.
	*Standard      The setting is the Standard Alignment setting in the Options form.
	Don't Change      The alignment for each cell is not changed.
Format	Controls the numeric format of numbers in cells. The format property you assign to cell(s) in this form overrides the Standard Format setting in the Options forms.
	Integer      Numbers are displayed with no digits to the right of the decimal point. If GRiD-Plot calculates the values as real numbers, it rounds them to integers for the display.
	\$      Numbers are displayed with two digits to the right of the decimal point.
	*Standard      The setting is the Standard Format setting in the Options form.
	Don't Change      The format for each cell is not changed.
Column Width	Controls the width of columns. The Column Width property you assign in this form overrides the Standard Column Width setting specified in the Options form.
	No. of Characters      Type a number between 0 and 250. The number you type represents the number of characters you want in the column.
	*Standard      The setting is the Standard Column Width setting in the Options forms.
	Don't Change      The width of each column is not changed.

\*Indicates initial setting.

Quit	CODE-Q Exits GRiDPlot and saves any changes made to your file since you last saved it. Likewise, your changes to any forms are saved.
Right Axis	CODE-? Determines right axis characteristics. See Axes Selection—CODE-?
Row	CODE-R Lets you select one or more rows on your graph table when issuing the Erase (CODE-E), Properties (CODE-P), Insert (CODE-I), or Transfer (CODE-T) commands.
Transfer	CODE-T Saves a file, exchanges one file for another, includes a file, writes to a file, prints and plots graphs, erases a file, and shows characteristics of a file.

#### Transfer Menu

Save This File	Saves a copy of the current file you are editing over the original file you retrieved. Entire file and settings in the Options, Properties, Axis, and Headings forms are saved.
Exchange for Another File	Retrieves a different file and lets you choose to save or cancel the changes in the current file. New file brings its own options.
Include a File	Retrieves an existing file and includes it in the file you are currently editing. Included text takes on the options and properties of current file.
Write to a File	Writes all or part of the current file to a different Device, Subject, Title, and Kind.
Print Graph on Printer	Prints a graph directly on Epson printer.
Write Graph to File	Saves screen image of a graph in a file.
Erase a File	Deletes a file on any device attached to your computer.
Show Characteristics of a File	Displays a report that gives the following characteristics of a file you specify: Device, Subject, Title, Kind, version number, length of file, date file was created, and date file was last modified.
Plot Graph on Plotter	Asks for portion of your graph to plot, displays Plotter Settings form (below), then sends graph to plotter.
Print	Displays Print menu.

Selecting the Plot Graph on Plotter item on the Transfer menu displays the Plotter Settings form.

### Plotter Settings Form

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Kind of Plotter	Determines the kind of plotter to plot your graph. Choices are *One-Pen (HP 7225), Eight-Pen (HP 9872), Two-Pen (HP 7470).
Coloring	Determines what messages GRiDPlot needs to give you about putting pens in plotter slots. This setting overrides the colors set for each row and column on the Properties Form.
One Color	GRiDPlot asks for background color, then plots everything. This is the same for One-Pen, Two-Pen and Eight-Pen plotters.
Two Colors	For One-Pen plotter, GRiDPlot asks for each color just before using it, including the background color.  For Two-Pen plotter, GRiDPlot plots in two colors, and does not ask for pens.  For Eight-Pen plotter, GRiDPlot plots in all colors, and does not ask for pens.
*All Colors	For One-Pen plotter, GRiDPlot asks for each color just before using it, including the background color.  For Two-Pen plotter, GRiDPlot asks for colors initially, then asks for pens only when a new color is required.  For Eight-Pen plotter, GRiDPlot plots in all colors, and does not ask for pens.
Background Color	This item sets the color of the text headings, horizontal labels, background grid, file name, and the axes on an axis graph.  Choices are *Black, Blue, Red, Green, Burnt Orange, Gold, Turquoise, Violet.

*\*Indicates initial setting.*

Selecting the Print item on the Transfer menu displays the Print menu.

### Print Menu

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Print This File	Causes all or selected portions of your current file to be printed out on the printer. The format of the printed data is determined by either the initial settings for options or the options you have selected in the Print Options form.
Set Printing Options	Displays the Print Options form.



Selecting the Set Printing Options item on the Print menu displays the Print Options form.

### Print Options Form

Headings	Determines the pages on which the heading text appears. Choices are *None, First page only, Not first page, All.
Heading Text	Heading text you specify to be printed at top of document pages. The heading is centered at the top of those pages you specify in the Headings item.  You can enter the following special characters as heading text: ^p    Prints the page number. ^d    Prints the current date. ^t    Prints the time of day.
Top Margin at	Specifies the first printed line from the top of the page. Initial setting is 5, or erase the current number and type a number from 1 to 250.
Bottom Margin at	Specifies the last printed line from the top of the page. Initial setting is 57, or erase the current number and type a number from 1 to 250.
Left Margin at	Specifies the first printed character from the left side of the page. Initial setting is 15, or erase the current number and type a number from 1 to 250.
Right Margin at	Specifies the last printed character from the left side of the page. Initial setting is 80, or erase the current number and type a number from 1 to 250.
Print Size	Determines the font used by the printer to print your document.  Choices are *Normal, Condensed, Enlarged, Boldface, Enlarged & Boldface.
Form Feed at	Determines if the paper or forms in the printer are ejected before and after printing your document. None        The pages aren't ejected either before or after printing. Each successive document you print follows the preceding one. Beginning of Print    Before printing, paper or forms are ejected and the first line of your document is printed at the line determined by the Top Margin setting. *End of Print        After printing, the paper or forms are ejected. Beginning & End      The paper or forms are ejected before and after printing.

\*Indicates initial setting.

**Usage****CODE-U**

Displays a report that shows the space usage both in main memory (RAM) and on the devices currently attached to your computer.

## GRiDWrite Command Summary

### Additional Keystroke Characters

Below is a list of special keystroke characters you can enter at your keyboard.

Character	Keystrokes
[	CODE-,
]	CODE-.
{	CODE-SHIFT-,
}	CODE-SHIFT-.
~	CODE-;
	CODE-SHIFT-;
'	CODE-'
\	CODE-SHIFT-'
■	CODE-SHIFT--

Begin	CODE-B Lets you mark the start of data you want to select after issuing the commands that use selections.
Cancel	CODE-ESC Exits GRiDWrite without saving changes you make to the file you are working on.
Commands	CODE-? Displays all GRiDWrite commands with a summary of each command function. Issue any command on this menu by moving the outline to it and confirming.
Duplicate	CODE-D Duplicates text from one location to another. Original selection remains intact.
Erase	CODE-E Erases text you select from your current file.
Find	CODE-F Lets you locate any sequence of up to 35 characters (including spaces) in your text file.

### Find Form

Find	Type in the sequence of characters you want to find. GRiDWrite treats a space like any other character.  <b>NOTE:</b> To type in the carriage return-line feed character (CR-LF), press CTRL-M.
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Match	Determines whether GRiDWrite finds an exact match for the sequence of characters you want to find, or a match without regard to upper- or lower-case letters.	
	*Independent of Case	Finds each occurrence of the sequence of characters without regard to upper- or lowercase letters.
	Exactly	Finds only those occurrences that are exact matches to the sequence of characters you want to find.
Direction	Determines the direction GRiDWrite searches in your text file.	
	*Forward	Searches from the cursor's position when you pressed CODE-F to the end of your text file.
	Backward	Searches from the cursor's position when you pressed CODE-F to the beginning of your text file.

*\*Indicates initial setting.*

Jump	CODE-J Moves you to a paragraph whose number you specify in the Jump form. After you enter the desired paragraph number and confirm, the cursor appears at the start of the desired paragraph.
Move	CODE-M Moves selected text from one location to another.
Options	CODE-O Determines format of your text file.

#### Options Form

Margins: Document Width	Determines number of characters that can appear in each line of text.	
	1-250	Type a number between 1 and 250 to set the document width. Press the → and ← keys to view the characters that don't fit on the screen.
	*Window Width	Number of characters displayed depends on the size of the display characters. See Current Typeface setting.
Margins: Automatic Indent	Determines whether or not the cursor indents automatically when you press the RETURN key. Choices are *Yes, No.	
Display: Ruler	Determines whether or not a ruler (a highlighted line at the top of the screen) is displayed. The ruler is helpful in formatting tables. Choices are Yes, *No.	



Display: Format Characters	Determines whether or not format characters (RETURN key, spacebar, or TAB key) are displayed. Choices are Yes, *No.
Tab Stops: Spacing	Lets you set tab stops automatically throughout your document.  1-250      Sets tab stops (which are an equal distance apart) throughout your document. The number you type determines the number of spaces between the automatic tab stops.  *Manual    No automatic tab stops are in set.  To delete tab stops, change the setting to Manual and confirm, delete one tab stop at a time with CODE-TAB, or delete all tab stops by pressing CODE-SHIFT-TAB.
Tab Stops: First	Determines where the first automatic tab stop begins. Changing the starting point of automatic tab stops doesn't affect manually set tabs.  1-250      Type a number between 1 and 250 in the setting to indicate where you want the first automatic tab stop to appear.  *Automatic    GRiDWrite inserts the first automatic tab stop the same number of spaces from the left margin as the number you typed in the Tab Stops: Spacing Setting.
Cursor: Movement by	Determines whether the cursor moves or erases by <i>words</i> or <i>tokens</i> when you press CODE in combination with the ←, →, or BACKSPACE key.  *Word      Moves the cursor from word to word. A word is any text plus the spaces that follow it.  Token      Moves the cursor from token to token. Tokens are one or more alphanumeric characters (letters and numbers) and any spaces, non-alphanumeric characters (punctuation) and any spaces, or returns. This setting is used mainly for programming.
Cursor: Cursor Wrap	Determines whether or not the cursor skips to the next line when it reaches the right or left document margins.  *Yes      After you press any key that causes the cursor to move past the right or left margin, the cursor skips to the next line.  No      The cursor remains stationary when it reaches the right or left margin, after you press an Arrow key or CODE-Arrow key. However, the cursor continues to skip to the next line as you insert or erase text.



Tabs for Cell-Based Files	<p>Inserts tab characters at columns marked by tab stops. Use this item when you are going to write or append your text document to a cell-based file (worksheet, graph, or database). Each column of data separated by the tab stop becomes a separate column of cells in the worksheet, graph, or database file.</p> <p>Choices are Yes, * No.</p>										
Current Typeface	<p>Lets you increase or decrease the number of columns that appear on your screen by changing the size of the display characters.</p> <table border="1"> <tr> <td data-bbox="625 486 756 520">System-wide</td><td data-bbox="776 486 1172 572">This setting is the same as the System-wide Typeface setting in the Options form of GRiDManager.</td></tr> <tr> <td data-bbox="625 581 756 616">Built-in 5×7</td><td data-bbox="776 581 1172 668">This setting provides the most efficient use of main memory (RAM) and is the same as GRiD 53.</td></tr> <tr> <td data-bbox="625 668 756 720">GRiD 53/ PC 53</td><td data-bbox="776 668 1172 703">Displays 53 columns of data.</td></tr> <tr> <td data-bbox="625 729 756 781">GRiD 64/ PC 64</td><td data-bbox="776 729 1172 763">Displays 64 columns of data.</td></tr> <tr> <td data-bbox="625 789 756 841">GRiD 80/ PC 80</td><td data-bbox="776 789 1172 824">Displays 80 columns of data.</td></tr> </table> <p><b>NOTE:</b> If you have other type fonts on your disk or bubble, they will also appear on the screen.</p> <p><i>* Indicates initial setting.</i></p>	System-wide	This setting is the same as the System-wide Typeface setting in the Options form of GRiDManager.	Built-in 5×7	This setting provides the most efficient use of main memory (RAM) and is the same as GRiD 53.	GRiD 53/ PC 53	Displays 53 columns of data.	GRiD 64/ PC 64	Displays 64 columns of data.	GRiD 80/ PC 80	Displays 80 columns of data.
System-wide	This setting is the same as the System-wide Typeface setting in the Options form of GRiDManager.										
Built-in 5×7	This setting provides the most efficient use of main memory (RAM) and is the same as GRiD 53.										
GRiD 53/ PC 53	Displays 53 columns of data.										
GRiD 64/ PC 64	Displays 64 columns of data.										
GRiD 80/ PC 80	Displays 80 columns of data.										

Quit

CODE-Q

Exits GRiDWrite and saves any changes made to your file since you last saved it.

Substitute

CODE-S

Locates and replaces occurrences of text.

#### Substitute Form

Search for	Type the text that you want replaced (original text). Type any character or character sequence that fits in the outline.
Replace with	Type the text that you want to replace your original text. Type any character or character sequence that fits in the outline.
Verification	<p>Determines whether or not you verify (look at) a substitution before it is made.</p> <p><b>* Yes</b> Command lets you look at and confirm each substitution before it is made. When you confirm the Substitute form, the command highlights each occurrence of the original text and displays the Verify Substitution form (see below).</p>



	No	Command substitutes all occurrences of original text with the replacement text without asking for verification.
Match		Determines whether the command finds text exactly as you typed it in the outline, or without regard to upper- or lowercase.
	*Independent of Case	Finds each occurrence of the text without regard to upper- or lowercase.
	Exactly	Finds only those occurrences that are exact matches to the original text.
Direction		Determines the direction of the search.
	*Forward	Searches from the cursor position when you pressed CODE-S toward the end of the document.
	Backward	Searches from the cursor position when you pressed CODE-S toward the beginning of the document.

*\* Indicates initial setting.*

If you choose the Yes setting for the Verification item on the Substitute form, the Verify Substitution form appears.

#### Verify Substitution Form

*Yes	Substitutes the original text with the replacement text and goes on to the next occurrence of the original text.
No	Doesn't substitute the original text, but goes on to the next occurrence of the original text.
Single	Replaces only the currently highlighted occurrence of the original text. Makes no further substitutions.
All	Substitutes for the highlighted occurrence of the text and all remaining occurrences without further verification.

*\* Indicates initial setting.*

#### Tab

##### CODE-TAB

Sets tab stops. To insert a tab stop, move the cursor to the desired location and press CODE-TAB. Each time you press the TAB key, the cursor moves to the column marked by a tab stop. To remove a tab stop, move the cursor to the position of the tab stop and press CODE-TAB. To remove all tab stops, press CODE-SHIFT-TAB.

#### Transfer

##### CODE-T

Saves a file, exchanges one file for another, includes a file, writes to a file, appends to a file, erases a file, shows characteristics of a file, and prints a file.

**Transfer Menu**

Save This File	Saves a copy of the current file you are editing over the original file you retrieved. Entire file and settings in the Options and other forms are saved.
Exchange for Another File	Retrieves a different file and lets you choose to save or cancel the changes in the current file. New file brings its own options.
Include a File	Retrieves an existing file and includes it in the file you are currently editing. Included text takes on the options of current file.
Write to a File	Writes all or part of the file to a different Device, Subject, Title, and Kind.
Append to a File	Appends all or part of the file to the end of a destination file with a different Device, Subject, Title, and Kind.
Erase a File	Deletes a file on any device attached to your computer.
Show Characteristics of a File	Displays a report that gives the following characteristics of a file you specify: Device, Subject, Title, Kind, version number, length of file, date file was created, and date file was last modified.
Format	The Format Menu appears. Select this item when you wish to print your document using GRiDWrite text formatting commands. See Transfer (Format) for an explanation of the Format Menu.
Print	The Print Menu appears. Select this item when you don't wish to print your file using GRiDWrite formatting commands. See Transfer (Print) for an explanation of the Print Menu.

**Transfer  
(Format)**

The following menu appears when you select the Format item in the first Transfer menu.

**Format Menu**

Format This File	Prints out the text file to the Printer. Interprets the text formatting commands inserted in the text file and formats the document accordingly.
Set Formatting Options	Provides selected page printing and other facilities. Displays the Format Options form (see following).
Write Printer Copy to the Screen	Puts a formatted copy of the current file directly onto your display screen; the text automatically scrolls upward.  <b>NOTE:</b> To halt scrolling at any point, press ESC. Confirm to resume scrolling. To halt scrolling and return to text editing, press ESC; then, press ESC again.



Write Printer Copy to a File	Puts a formatted copy of the current file into a text file you specify. You use this option in two instances: (1) when you want to print your file on a printer attached to an external server device, or (2) when you want to inspect your formatted document without actually printing it.
Append Printer Copy to a File	Performs the same function as Write Printer Copy to a File except the data you transfer is appended at the end of any data already present in the destination file.

The following form appears when you select the Set Formatting Options item on the Format menu.

#### Format Options Form

Ignore Format Option	GRiDWrite ignores any text formatting command inserted within the text file. The settings in the Print Options form (see following) control the format of the printed document.
Halt After Each Page	If you select No, the text file is printed out continuously from beginning to end. If you select Yes, GRiDWrite stops printing at the end of each page. To resume printing, press CODE-RETURN. This option applies to text sent to the printer, another file, and to the screen. Choices are Yes, *No.
First Page Number	Sets the page number your text starts printing from. Initial setting is 1. Leave this setting as it is, or type in any number within the range of the total printed pages of your file.
Print Pages	Lets you select the pages you want printed according to page number. Choices are *All (the entire document is printed), Range (a portion of the document is printed). The following examples demonstrate settings for the Range choice: 3-5      Prints out page numbers 3 through 5. 3, 9, 15      Prints out pages 3, 9, and 15. 3-      Prints out entire document starting at page 3.

\*Indicates initial setting.

Transfer  
(Print)

The following menu appears when you select the Print item in the first Transfer menu.

#### Print Menu

Print This File	Causes all or selected portions of your file to be printed out on the printer. The format of the printed data is determined by either the default options or the options you have selected in the Print Options form.
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Set Printing Options	Determines the format and appearance of your current file. Displays the Print Options form (see below).
Write Printer Copy to a File	Puts a formatted copy of your text file into a file you specify. When you retrieve your file, it appears on the display in the same format as it would appear on a printed page.
Append Printer Copy to a File	Appends a formatted copy of your text file to the end of a file you specify. When you retrieve your file, it appears on the display in the same format as it would appear on a printed page.

Selecting the Set Printing Options item on the Print menu displays the Print Options form.

#### Print Options Form

Headings	Determines the pages on which the heading text appears. Choices are *None, First page only, Not first page, All.
Heading Text	Heading text you specify to be printed at top of document pages. The heading is centered at the top of those pages you specify in the Headings item.  You can enter the following special characters as heading text:  ^p Prints the page number. ^d Prints the current date. ^t Prints the time of day.
Top Margin at	Specifies the first printed line from the top of the page. Initial setting is 5, or erase the current number and type a number from 1 to 250.
Bottom Margin at	Specifies the last printed line from the top of the page. Initial setting is 57, or erase the current number and type a number from 1 to 250.
Left Margin at	Specifies the first printed character from the left side of the page. Initial setting is 15, or erase the current number and type a number from 1 to 250.
Right Margin at	Specifies the last printed character from the left side of the page. Initial setting is 80, or erase the current number and type a number from 1 to 250.
Print Size	Determines the font used by the printer to print your document. Choices are *Normal, Condensed, Enlarged, Boldface, Enlarged & Boldface.



Form Feed at	Determines if the paper or forms in the printer are ejected before and after printing your document.
Beginning	Before printing, paper or forms are ejected and the first line of your document is printed at the line determined by the Top Margin setting.
*End	After printing, the paper or forms are ejected.
Both	The paper or forms are ejected before and after printing.
Neither	The pages aren't ejected either before or after printing. Each successive document you print follows the preceding one.

*\*Indicates initial setting.*

Usage CODE-U

Displays a report that shows the space usage both in main memory (RAM), and on the devices currently attached to your computer.

## GRiDWrite Formatting Commands

The tables on the following pages show the GRiDWrite formatting commands and give a summary of the function of each command.

### Headers and Footers

Command	Name and Description
<b>^he</b> " " " " " "	Header. Prints header on each page.
<b>^lh</b> " " " " " "	Left Header. Prints header only on the left-hand pages of document.
<b>^rh</b> " " " " " "	Right Header. Prints header only on the right-hand pages of document.
<b>^hl</b> Number	Header Line. <i>Number</i> specifies the line number where the header appears. If you don't specify the ^hl command, the header appears on line 3.
<b>^fh</b> Number	First Header. <i>Number</i> specifies the page number where the first header appears. If you don't specify the ^fh command, the first header appears on page 2.
<b>^fo</b> " " " " " "	Footer. Prints footer on each page.
<b>^lf</b> " " " " " "	Left Footer. Prints footer only on the left-hand pages of document.
<b>^rf</b> " " " " " "	Right Footer. Prints footer only on the right-hand pages of document.
<b>^fl</b> Number	Footer Line. <i>Number</i> specifies the line number where footer appears. If you don't specify the ^fl command, the footer appears on line 59.
<b>^ff</b> Number	First Footer. <i>Number</i> specifies the page number where first footer appears. If you don't specify the ^ff command, the first footer appears on page 1.
<b>^p</b>	Page Number. When inserted in header or footer text, this command paginates your document.





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<b>^d</b>	Date. When inserted in header or footer text, this command adds the current date to your document.
<b>^t</b>	Time. When inserted in header or footer text, this command prints the time your document is printed.

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### Include Commands

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Command	Name and Description
<b>^if</b> pathname	Include File. Includes any file other than a screen-image file in your document.
<b>^si</b> pathname	Screen Image. Includes a screen-image file in your document.

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### Miscellaneous Commands

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Command	Name and Description
<b>^re</b> (text)	Remark. Inserts a remark in your text file, which doesn't appear when the file is printed.
<b>^cm</b> (new command marker)	Change Marker. Changes the command marker (^) to any other character desired.

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### Page Layout

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Command	Name and Description
<b>^tm</b> Number	Top Margin. <i>Number</i> specifies the first line number on each page where nonheader text starts. If you don't specify the <b>^tm</b> command, GRiDWrite sets the top margin to line 5.
<b>^bm</b> Number	Bottom Margin. <i>Number</i> specifies the last line number on each page where nonfooter text ends. If you don't specify the <b>^bm</b> command, GRiDWrite sets the bottom margin to line 57.
<b>^lm</b> Number	Left Margin. <i>Number</i> specifies the left margin. If you don't specify the <b>^lm</b> command, GRiDWrite sets the left margin to column 15.
<b>^rm</b> Number	Right Margin. <i>Number</i> specifies the right margin. If you don't specify the <b>^rm</b> command, GRiDWrite sets the right margin to column 80.

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<b>^li Number*</b>	Left Indent. Indents the left margin of all the lines that follow it.
<b>^ri Number*</b>	Right Indent. Indents the right margin of all the lines that follow it.
<b>^ti Number*</b>	Temporary Indent. Temporarily indents the left margin for one indent-line only.

*\*A plus sign (+) or a minus sign (-) can precede Number, indicating the number of spaces to increase or decrease the margin. Because GRiDWrite interprets a blank space before a number as positive, the plus sign (+) is optional.*

### Text Layout

Command	Name and Description
<b>^sl Number</b>	Skip Lines. <i>Number</i> specifies blank lines in your text.
<b>^nl Number</b>	Need Lines. Keeps blocks of text together.
<b>^rl Number</b>	Reserve Lines. Reserves lines for illustrations.
<b>^ep Number</b>	Eject Page. <i>Number</i> specifies a page break.
<b>^pn Number</b>	Page Number. <i>Number</i> specifies the page number after the next page break.
<b>^ls Number</b>	Line Spacing. <i>Number</i> specifies the spaces between lines in your document. A decimal number is permitted if supported by your printer.
<b>^cl*</b>	Center Lines. Centers text.
<b>^rj*</b>	Right Justify. Justifies the right margin of your text.

*\*Insert this command twice, once on the line before and once on the line after the line(s) of text to be centered or justified.*

### Typeface Commands

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Command	Name and Description
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<b>^b*</b>	Boldface. Prints a single word, phrase, or section of text in boldface type.
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<b>^u*</b>	Underline. Underlines a single word, phrase, or section of text.
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<b>^sp*</b>	Superscript. Prints a superscript (a number or letter in smaller typeface set above text).
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<b>^sb*</b>	Subscript. Prints a subscript (a number or letter in smaller typeface set below text).
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<b>^co*</b>	Condensed. Prints text in condensed type.
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<b>^en*</b>	Enlarged. Prints text in enlarged type.
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<b>^it*</b>	Italics. Prints text in italics.
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*\*You must insert all of the typeface commands twice, once before the first character of the text to be changed and once after the last character. The first time you insert a typeface command, the command is "on." The next time you insert it, the command is "off."*



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